

1 Ms. Tricia Campbell

2 19 September 2019

3
4 **Mr. Rice:** We'll go ahead and continue with this hearing. Before we start with our next
5 witness I want to remind the PII's to keep their questions within the prevue of the
6 witness' direct knowledge and their direct control. And don't ask questions for her to
7 speculate or give her opinion on things that are not under her control. So with that our
8 next witness is Ms. Tricia Campbell from the Army Corps of Engineers. And you're
9 represented by?

10 **Counsel:** James Purcell, Galveston District Army Corps of Engineers.

11 **Mr. Rice:** Thank you, sir.

12 **Recorder:** Good afternoon Ms. Campbell. Could you please stand and raise your right
13 hand. A false statement given to an agency of the United States is punishable by fine
14 and or imprisonment under 18 U.S.C. 1001. Knowing this do you solemnly swear that
15 the testimony you are about to give will be the truth, the whole truth and nothing but the
16 truth so help you God?

17 **WIT:** I do.

18 **Recorder:** Thank you, please be seated. State your name and spell your last for the
19 record please.

20 **WIT:** My name is Tricia Campbell, T-R-I-C-I-A C-A-M-P-B-E-L-L.

21 **Mr. Rice:** Mr. Elhers.

22 **NTSB:** Good afternoon again, Ma'am and thanks again for wading in here. Excuse
23 me. Can you tell us what your position is with the Army Corps of Engineers?

1 **WIT:** I'm an operations manager. I manage the maintenance dredging operations
2 along the Houston ship channel and Galveston Harbor.

3 **NTSB:** Okay how many years have you been in that position?

4 **WIT:** I've been in this position since 2012.

5 **NTSB:** And can you give us a brief overview of your professional experience prior to
6 that? Prior to taking this job.

7 **WIT:** Prior to taking this job I was an Army Officer. I was actually stationed at the
8 Corps of Engineer doing similar jobs on the Houston ship channel since 2007.

9 **NTSB:** And you mentioned maintenance of the channel. Can you describe what the
10 Corps of Engineers activities are in maintaining the Houston ship channel?

11 **WIT:** Right. The Corps of Engineers maintains the Houston ship channel by
12 conducting maintenance dredging operations.

13 **NTSB:** Okay. And is that a continuous operation? Is that done on a periodic basis or
14 as needed? How's that done?

15 **WIT:** We have historical areas that are dredged on different intervals based on the
16 history of how quickly they shoal. So the entire channel has different rates of shoaling.
17 We also look at our surveys to determine if something is shoaling faster or slower and
18 we adjust our plan contracts. We also have to fit within our available funding. So that
19 also determines which contracts we award.

20 **NTSB:** You mentioned the surveys. When and how are the surveys conducted?

21 **WIT:** We conduct the surveys periodically at a minimum of every six months. Or more
22 frequently if requested or needed. Areas that shoal quicker we survey more frequently.

1 **NTSB:** And where are these surveys taken? Is there a distance? Is there a set interval
2 that they're taken along the channel, or how does that work?

3 **WIT:** It depends on the kind of survey. For the most part they're exam surveys that are
4 taken on a 200 foot interval. Tighter sometimes in areas that are – in curves or we have
5 them at closer interval if we're doing a contract.

6 **NTSB:** If there's a, let me ask this. Earlier today we heard from Captain Mitchem of the
7 Houston Pilots he describe overcut meaning when the dredging is done. Can you
8 describe that? Is that a term you're familiar with?

9 **WIT:** We call it advance maintenance.

10 **NTSB:** What does that mean?

11 **WIT:** So the authorized up to the channel we're allowed to dredge below that
12 authorized depth in order to prolong the time that we need between dredging cycles in
13 order to maintain the authorized depth of the channel.

14 **NTSB:** And is that additional depth, is that a set amount or is that depending on where
15 it is in the Houston ship channel?

16 **WIT:** It's generally dependent on funding. We try to do at least 2 feet. However, the
17 purpose of that additional, that additional – that advanced maintenance is purely for the
18 – us to be able to prolong the time between our contracts.

19 **NTSB:** Does the advance maintenance include not only the depth but also the width of
20 the channel? Or is it?

21 **WIT:** It's the entire width of the channel, yes.

22 **NTSB:** Okay. But for instance the main, or the deep water channel or the deep draft
23 channel is that cut wider than the design for the same purpose?

1 **WIT:** I'm not quite understanding your question.

2 **NTSB:** I believe the design width of the deep water channel is 530 feet wide. Is that
3 correct?

4 **WIT:** Yes the channel's 530 foot wide.

5 **NTSB:** And is that – is the depth 45 foot depth cut any wider than that for the same
6 purpose of the advance?

7 **WIT:** The advance maintenance is cut at the same depth as the channel.

8 **NTSB:** If there's a sudden change in the depth, unexpected shoaling how is that
9 handled by the Corps of Engineer?

10 **WIT:** If we get notification of it we'll go out and survey. Many times if there's a request
11 of the Pilots or the Coast Guard if they're sensing an issue we'll survey. That's
12 generally how we find out most of our concerns.

13 **NTSB:** And if there's a survey that results in shallowing more than the designed depth
14 of the channel is there dredging take place in that area?

15 **WIT:** We generally try to address any areas quickly if they're a problem. However, we
16 are funding limited and we're dredging limited. So we can't always get out there and
17 take care of the concerns and we work with the Pilots and the Coast Guard and they
18 often put their own restrictions on the channel until we're able to alleviate a shoal.

19 **NTSB:** And when you say you work with the Pilots and the Coast Guard how is that
20 done? Through what?

21 **WIT:** Communications, we all see each other on a frequent basis at industry meetings,
22 etc., emails, phone calls.

1 **NTSB:** So if there's an unexpected shoaling that's communicated to the Coast Guard
2 and Pilots?

3 **WIT:** They usually contact me or my boss.

4 **NTSB:** Okay. So you're more than likely receiving that information from the Coast
5 Guard or the Pilot?

6 **WIT:** Correct.

7 **NTSB:** I see. Is there an on call dredge available in case of an unexpected shoaling
8 that results in the shallowing of the channel below the designed depth?

9 **WIT:** No we are very limited on dredge plan, the Corps doesn't own dredges we
10 contract it out. We have to do a procurement under the Federal Acquisition
11 Regulations. So we don't have anything that's there waiting to address a shoal. We're
12 also funding limited. So that means that any contract we put out has to be within our
13 available funds and that also drives some of our decisions.

14 **NTSB:** Okay. Has that ever resulted in the channel being less than designed depth or
15 – for a period of time?

16 **WIT:** Yes.

17 **NTSB:** Is there currently any areas of the channel that are below or above designed
18 depth?

19 **WIT:** Yes.

20 **NTSB:** Is the area of Bayport Flare, are you familiar with Bayport Flare?

21 **WIT:** I am familiar with Bayport Flare.

22 **NTSB:** Okay, I just wanted to make sure.

23 **WIT:** Yes.

1 **NTSB:** And also the turn at 5 mile cut, when I refer to that do you understand that?

2 **WIT:** I'm aware of the general area, but I may call it something different than what you

3 do.

4 **NTSB:** Okay. So just to make sure I'm clear just below Bayport Flare and just below

5 where the 5 mile cut intersects the Houston ship channel there's a slight turn in the

6 channel.

7 **WIT:** Yes, okay.

8 **NTSB:** You understand where I am?

9 **WIT:** Yes.

10 **NTSB:** Alright. Is that an area that – of known shallowing below designed depth?

11 **WIT:** We always have material on the toes along the channel. As the channel shoals

12 up it shoals in the toes. So that area ----

13 **NTSB:** I'm sorry, the toes?

14 **WIT:** The toes of the channel, the green side and the red side at the bottom edge of the

15 channel on the outside. When shoaling happens generally it happens in the toes. And

16 so as that material grows then it may go into the, what we call the template which is the

17 designed depth that we dredge.

18 **NTSB:** Does shoaling often happen in turns where the direction of the channel

19 changes?

20 **WIT:** Yes.

21 **NTSB:** And is that turn there at Bayport or just South of Bayport, is that a common area

22 of shoaling?

23 **WIT:** It is a common area but not one that is commonly brought up as a concern.

1 **NTSB:** Have recent storms such as Harvey, the storm we're in the midst of right now,
2 has that had an impact on the Houston ship channel?

3 **WIT:** I can't speak on this storm right now. The Harvey did bring a lot of material into
4 the system from what we can tell. All the material coming down the Bayous and into the
5 Houston ship channel system.

6 **NTSB:** Has that accelerated the shoaling in the Houston ship channel?

7 **WIT:** We've had to dredge more frequently and procure contracts due to Harvey that
8 weren't originally planned.

9 **NTSB:** Give me just a second. Do you know when the area that I've been speaking of
10 was last dredged?

11 **WIT:** It was last dredged after Harvey in the vicinity of November or December of 2017.
12 We procured an emergency contract after Harvey that included that area.

13 **NTSB:** Okay. I understand that the Bayport Flare was increased in size, the flare itself
14 there at the Bayport channel, is that correct?

15 **WIT:** That is correct.

16 **NTSB:** Can you tell me when that was completed?

17 **WIT:** That construction was completed in 2018. I can't remember the exact time frame,
18 but in between the spring and the fall. Sometime in the summer.

19 **NTSB:** And has that change in the waterway resulted in any unexpected shoaling in the
20 area?

21 **WIT:** I don't know.

22 **NTSB:** Is there any plan to dredge that area in the near future? Or is there any – is it
23 on a plan to dredge there?

1 **WIT:** Yes. For the area of the Houston ship channel adjacent to Bayport and South
2 down to Red Fish we had a normally scheduled maintenance dredging contract that we
3 were already in the process of putting together at the time of the incident. And we've
4 already awarded that contract and we anticipate the dredge to arrive in the November
5 time frame.

6 **NTSB:** That's all I have, thank you.

7 **Mr. Rice:** Ms. Campbell I have a couple of questions. Mr. Elhers was talking about
8 when you get indication of shoaling and you said, what was it, was it towing or towed
9 or?

10 **WIT:** Toes of the channel.

11 **Mr. Rice:** Toes.

12 **WIT:** T-O-E-S.

13 **Mr. Rice:** T-O-E-S?

14 **WIT:** Toes.

15 **Mr. Rice:** Okay and you said that's near the outside of the barge lanes?

16 **WIT:** Not the outside of the barge lane. At the bottom of the channel. Can I use my
17 hands?

18 **Mr. Rice:** Sure.

19 **WIT:** If the channel is shaped like this, the toe would be the bottom corner.

20 **Mr. Rice:** So we have a ship channel with a width of 530 feet.

21 **WIT:** Correct.

22 **Mr. Rice:** So the first indication would be down here?

23 **WIT:** Generally yes.

1 **Mr. Rice:** Okay.

2 **WIT:** Generally that's where the material shoals.

3 **Mr. Rice:** Have you – around the Bayport Flare where you recently made those
4 changes you said you weren't aware of any shoaling, or any increase in shoaling, is that
5 correct?

6 **WIT:** There has been different changes to the Flare. The most recent changes that I
7 was asked about for the bend easing, is what it's been called was in 2018. There have
8 been other changes in the Bayport configuration prior to that.

9 **Mr. Rice:** Okay.

10 **WIT:** However, our dredging frequency hasn't changed recently and I do not know if
11 there is a change in shoaling due to the new configuration.

12 **Mr. Rice:** Can you give me an idea of how many surveys have been conducted in that
13 area since the last change?

14 **WIT:** On the Houston ship channel or on the Bayport Flare?

15 **Mr. Rice:** On the Bayport Flare.

16 **WIT:** On the Bayport Flare we've been surveying every two to three months. We had a
17 dredging contract in April and we surveyed again in July. And we surveyed again in
18 September. The beginning of September

19 **Mr. Rice:** Okay so this year alone you've had as I recall, January, April, May, July and
20 now September?

21 **WIT:** In the Bayport Flare I'm aware of April, July and September for sure. Those other
22 two I would have to check.

23 **Mr. Rice:** And was there significant changes from the April to September?

1 **WIT:** From the April to September we're seeing the normal shoaling pattern that we
2 always see at the Bayport Flare.

3 **Mr. Rice:** Has anybody else reported to the Army Corps about any issues with the
4 Flare as far as shallowing or anything like that?

5 **WIT:** The Flare always shoals at an increased rate, the Bayport Flare itself. So I'm
6 aware of the shoaling issues. However, nothing beyond what we normally see.

7 **Mr. Rice:** And no one's indicated or reported to you that there was any – that there
8 might have been any increase since what you would normally expect?

9 **WIT:** No. I'm not evaluating the design and the shoaling patterns from the designs.

10 **Mr. Rice:** Anything else, sir?

11 **NTSB:** Is there somebody in the Corps of Engineers who does evaluate the shoaling
12 pattern?

13 **WIT:** There is a team who does projects that change the dimensions of the channel.
14 And I was not that project manager.

15 **NTSB:** Okay. What's the name for the team? Or is there – do you know what the
16 name of the team?

17 **WIT:** It varies. It depends on which – which project you're asking about. As far as
18 there's been different projects on the Houston ship channel and Bayport led by different
19 project managers.

20 **NTSB:** Okay. And the project manager is within the Galveston District?

21 **WIT:** Yes.

22 **NTSB:** Okay, thank you.

23 **Mr. James:** No questions, sir, thank you.

1 **Mr. Rice:** Mr. Brown?

2 **Mr. Brown:** No questions Mr. Chairman.

3 **Mr. Rice:** Mr. Bailey?

4 **Mr. Bailey:** No questions.

5 **Mr. Rice:** Mr. Bar.

6 **Mr. Georgantas:** Good afternoon Eugene Bar for the Genesis River interest. Ma'am,
7 how soon is the Corps of Engineers survey information released once a survey is
8 performed?

9 **WIT:** Generally within a week. Depending on our constraints. Sometimes our data, we
10 have to merge with other files. It depends on our staff and their availability.

11 **Mr. Georgantas:** And how is that information disseminated?

12 **WIT:** It goes on to our website and they can download X, Y, Z files or PDF files.

13 **Mr. Georgantas:** So typically a survey on the Houston ship channel performed by the
14 Corps gets posted on its website within a week?

15 **WIT:** Generally within a week.

16 **Mr. Georgantas:** And does the Corps communicate it's survey findings directly with the
17 Houston Pilots?

18 **WIT:** It depends on if the Pilots have requested a survey. If I remember to tell them it's
19 up then yes. But a lot of times they see it before I'm even made aware that it's online.

20 **Mr. Georgantas:** And if the Corps finds shoaling in an area does the Corps take extra
21 steps to communicate such findings?

22 **WIT:** Our data we're sharing with the Pilots and with industry. If we see something it's
23 not really our responsibility to tell everyone that it's there. But as a spirit of partnership if

1 I see something I would say it. But usually the Pilots notice it before I do. They're the
2 ones who are out on the channel.

3 **Mr. Georgantas:** You mentioned that the Bayport Flare area was surveyed back in
4 April.

5 **WIT:** Yes.

6 **Mr. Georgantas:** Was any shoaling found as part of that April survey?

7 **WIT:** No not at the Bayport Flare because we had just finished dredging it.

8 **Mr. Georgantas:** Was there any shoaling found in the vicinity of marker 75?

9 **WIT:** That's at the South side of the Bayport Flare?

10 **Mr. Georgantas:** Correct.

11 **WIT:** I did see some in the Houston ship channel at the side of the Bayport Flare.

12 **Mr. Georgantas:** Was shoaling found elsewhere in that general area?

13 **WIT:** Just the general normal shoaling pattern in the toes.

14 **Mr. Georgantas:** Do you know why the Bayport Flare was widened?

15 **WIT:** It was part of a study, but I'm not in tune enough to speak on that study.

16 **Mr. Georgantas:** And there was a discussion about the toe area, just for clarification is
17 that an area where the makeshift channel transitions to the barge lane?

18 **WIT:** No. The barge lanes are the top of the channel. The toe is the bottom portion of
19 the deep draft where you go from the slop to the bottom of the channel.

20 **Mr. Georgantas:** Okay. Thank you, Ma'am.

21 [Witness warned and dismissed].
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23